

ABSTRACT

THE MICROORGANISMS PATTERNS WHICH CAUSE VENTILATOR ASSOCIATED PNEUMONIA AND ITS ANTIBIOTICS SENSITIVITIES IN DR. H ABDOEL MOELOEK HOSPITAL BANDARLAMPUNG

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Background: Ventilator-associated pneumonia (VAP) is a kind pneumonia which is suffered by patient who used ventilator mechanic for more than 48 hours. VAP is one of the most common nosocomial infections found in the Intensive care unit and has the highest morbidity and mortality rates between 24-76%. The treatments should be based on the microorganism which causes the VAP. Giving treatment without detecting the etiology tends to increase the antibiotics resistances.

Objective: to know the microorganisms pattern and their sensitivity test to antibiotics in Dr. H. Abdul Moeloek Hospital Bandarlampung.

Methods: This was an observational study using cross sectional method. The samples are 14 patients who used ventilator mechanic for more than 48 hours in the ICU. The specimens were collected, identified, and tested its sensitivity to antibiotics in microbiology laboratory.

Results: The microorganism collected from patients who use ventilator mechanic were *Pseudomonas aeruginosa* (28.57%), *Staphylococcus aureus* (28.57%), *Streptococcus sp* (14.29%), *Escherichia coli* (14.29%), *Staphylococcus epidermidis* (7.14%), and *Shigella sp* (7.14%). The sensitivity test to antibiotics resulted ceftriaxone was 28.57%, ciprofloxacin was 71.43%, cefotaxime was 28.57%, gentamicin was 28.57%, and penicillin was 0%.

Conclusion: The most common microorganisms which cause VAP were *Pseudomonas aeruginosa* and *Staphylococcus aureus*, while the most sensitive antibiotic was ciprofloxacin.

Keywords: antibiotics, bacteria, nosocomial infections, Ventilator-associated pneumonia

ABSTRAK

POLA MIKROORGANISME PENYEBAB *VENTILATOR ASSOCIATED PNEUMONIA* DAN SENSITIVITASNYA TERHADAP ANTIBIOTIK DI RSUD DR. H ABDOEL MOELOEK BANDARLAMPUNG

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Latar belakang: *Ventilator-associated pneumonia* (VAP) merupakan pneumonia yang didapat pada pasien pengguna alat bantu napas mekanis setelah 48 jam. VAP merupakan salah satu infeksi nosokomial yang paling banyak ditemukan di ruang ICU serta memiliki tingkat morbiditas dan mortalitas tertinggi antara 24-76%. Tatalaksana VAP harus berdasarkan mikroorganisme penyebabnya, kecenderungan penatalaksanaan VAP tanpa mengetahui mikroorganisme penyebabnya menimbulkan peningkatan resistensi terhadap antibiotik.

Tujuan: Mengetahui pola mikroorganisme dan sensitivitasnya terhadap antibiotik di RSUD Dr. H. Abdul Moeloek Bandarlampung.

Metode: Penelitian ini merupakan penelitian observasional dengan metode *cross sectional*. Terdapat 14 subjek penelitian yang merupakan pasien pengguna alat bantu napas mekanik lebih dari 48 jam di ruang rawat intensif (ICU) yang menderita VAP. Kemudian sampel diidentifikasi dan dilakukan uji sensitivitasnya terhadap antibiotik.

Hasil: Hasil identifikasi isolat mikroorganisme pada pasien VAP yaitu *Pseudomonas aeruginosa* (28,57%), *Staphylococcus aureus* (28,57%), *Streptococcus sp* (14,29%), *Escherichia coli* (14,29%), *Staphylococcus epidermidis* (7,14%), dan *Shigella sp* (7,14%). Pada uji sensitivitas seluruh sampel didapatkan hasil bahwa sensitivitas seftriakson 28,57%, siprofloksasin 71,43%, sefotaksim 28,57%, gentamisin 28,57%, dan penisilin 0%

Kesimpulan: Mikroorganisme terbanyak penyebab VAP adalah *Pseudomonas aeruginosa* dan *Staphylococcus aureus*, antibiotik yang paling sensitif adalah siprofloksasin.

Kata kunci: antibiotika, bakteri, infeksi nosokomial, *Ventilator-associated pneumonia*.